

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 Claim 1 (previously presented): A communications method, the
2 method comprising:
3 operating an access node to receive a data message directed
4 to an end node; and
5 operating the access node to determine a paging requirement
6 using packet classification based on a header field included in
7 said data message.

1 Claim 2 (previously presented): The method of claim 1,
2 wherein said paging requirement is determined as a function
3 of at least one of a quality of service indicator, a type
4 indicator, a source indicator, and a destination indicator; and
5 wherein said access node is a base station, the method
6 further comprising:
7 operating said access node to allocate a paging
8 transmission resource for transmitting a page as a function of
9 the determined paging requirement, at least some of said
10 plurality of paging requests having different determined paging
11 requirements resulting in different allocation of access node
12 resources.

1 Claim 3 (previously presented): The method of claim 2, further
2 comprising:
3 operating said access node to transmit a page over a
4 wireless communications link using the allocated paging
5 transmission resource.

1 Claim 4 (previously presented): The method of claim 3, wherein
2 said step of transmitting a page includes incorporating, into
3 said page, information indicating a state of device operation in

4 which a device to which said page is directed is to operate
5 after receiving said page.

1 Claim 5 (previously presented): The method of claim 2, further
2 comprising:
3 operating said access node to communicate a paging signal
4 to a second node, indicating allocation of a paging transmission
5 resource for use in transmitting a page corresponding to said
6 received data message.

1 Claim 6 (previously presented): The method of claim 1, further
2 comprising:
3 operating said access node to communicate said determined
4 paging requirement to a second node in a paging request message.

1 Claim 7 (previously presented): The method of claim 6, wherein
2 said paging request message includes at least a portion of said
3 received data message.

1 Claim 8 (original): The method of claim 7, wherein said
2 determined paging requirement, indicated in said paging request
3 message, is that said portion be included in a page.

1 Claim 9 (original): The method of claim 6, wherein said
2 determined paging requirement, indicated in said paging request
3 message, is that a page be acknowledged.

1 Claim 10 (original): The method of claim 6, wherein said
2 determined paging requirement, indicated in said paging request
3 message, is a quality of service.

1 Claim 11 (original): The method of claim 10, wherein said
2 quality of service includes a page transmission timing
3 constraint.

1 Claim 12 (original): The method of claim 10, wherein said
2 quality of service is one of a plurality of levels.

1 Claim 13 (original): The method of claim 10, wherein said
2 quality of service requires that a page be transmitted multiple
3 times.

1 Claim 14 (original): The method of claim 10, wherein said
2 quality of service requires retransmission of a page at least
3 once in the absence of an acknowledgment.

1 Claim 15 (previously presented): The method of claim 14,
2 further comprising:
3 operating the second node to cause said retransmission of
4 said page to be into a geographic area larger than an initial
5 transmission area of said page.

1 Claim 16 (previously presented): The method of claim 6,
2 wherein said determined paging requirement, indicated in
3 said paging request message, is a quality of service level; and
4 wherein said paging request message includes paging
5 resource allocation information indicating a fraction of a
6 paging resource to be allocated by said second node to pages
7 having said quality of service level, the method further
8 comprising:
9 operating the second node to allocate said fraction of said
10 paging resource to pages having a quality of service level
11 indicated in said paging request message.

1 Claim 17 (original): The method of claim 6, further comprising:
2 operating said second node to allocate a paging
3 transmission resource for transmitting a page, as a function of
4 said determined paging requirement, indicated in said paging
5 request message.

1 Claim 18 (original): The method of claim 17, further
2 comprising:
3 operating said second node to transmit a page using the
4 allocated paging transmission resource.

1 Claim 19 (previously presented): The method of claim 17,
2 further comprising:
3 operating said second node to communicate a paging signal
4 to a third node, indicating allocation of a paging transmission
5 resource for use in transmitting a page corresponding to said
6 data message.

Claims 20-26 (canceled)

1 Claim 27 (previously presented): A communications system
2 comprising:
3 a base station including:
4 i) means for receiving a data message directed to an end node;
5 and
6 ii) means for determining a paging requirement using packet
7 classification based on a header field included in said data
8 message, said paging requirement being determined as a function
9 of at least one of a quality of service indicator, a type
10 indicator, a source indicator, and a destination indicator.

1 Claim 28 (previously presented): The system of claim 27,
2 wherein said base station, further comprises:
3 means for allocating a paging transmission resource for
4 transmitting a page as a function of a determined paging
5 requirement.

1 Claim 29 (previously presented): The system of claim 28,
2 wherein said base station further includes a radio transmitter

3 for transmitting a page using the allocated paging transmission
4 resource.

1 Claim 30 (previously presented): The system of claim 29,
2 wherein said base station further includes:
3 means for generating a paging request message including
4 information indicating said determined paging requirement; and
5 means for transmitting said paging request message to
6 another node.

1 Claim 31 (previously presented): The system of claim 30,
2 wherein said paging request message includes at least a portion
3 of said received data message and wherein said determined paging
4 requirement, indicated in said paging request message, is that
5 said portion be included in a page.

1 Claim 32 (original): The system of claim 30, wherein said
2 determined paging requirement, indicated in said paging request
3 message, is that a page be acknowledged.

1 Claim 33 (original): The system of claim 30, wherein said
2 determined paging requirement, indicated in said paging request
3 message, is a quality of service requirement.

1 Claim 34 (original): The system of claim 30, further
2 comprising:

3 a second node, said second node including:
4 i) means for receiving said paging request message;
5 ii) means for allocating at least one paging resource as a
6 function of paging requirement information included in a
7 received paging request message; and
8 iii) means for transmitting a page to a mobile node using
9 the at least one allocated paging resource.

1 Claim 35-45 (canceled):

1 Claim 46 (new) A base station comprising:

2 a receiver module for receiving a data message directed to
3 an end node; and

4 a paging requirement determination module for determining a
5 paging requirement through the use of packet classification
6 based on a header field included in said data message, said
7 paging requirement being determined as a function of at least
8 one of a quality of service indicator, a type indicator, a
9 source indicator, and a destination indicator.

1 Claim 47 (new): The base station of claim 46, further
2 comprising:

3 a resource allocation module for allocating a paging
4 transmission resource for transmitting a page as a function of a
5 determined paging requirement.

1 Claim 48 (new): The base station of claim 47, further
2 comprising:

3 a radio transmitter for transmitting a page using the
4 allocated paging transmission resource.

1 Claim 49 (new): A machine readable medium embodying machine
2 executable instructions for controlling a base station to
3 implement a method, the method comprising: receive a data
4 message directed to an end node; and

5 operating the access node to determine a paging requirement
6 using packet classification based on a header field included in
7 said data message.

1 Claim 50 (new): The machine readable medium of claim 49,

2 wherein said paging requirement is determined as a function
3 of at least one of a quality of service indicator, a type
4 indicator, a source indicator, and a destination indicator; and

5 wherein machine readable medium further embodies machine
6 executable instructions for controlling a base station to
7 perform the step of:

8 allocating a paging transmission resource for transmitting
9 a page as a function of the determined paging requirement, at
10 least some of said plurality of paging requests having different
11 determined paging requirements resulting in different allocation
12 of access node resources.

1 Claim 51 (new): The machine readable medium of claim 50,
2 further embodying machine executable instructions for
3 controlling a base station to perform the step of:
4 transmitting a page over a wireless communications
5 link using the allocated paging transmission resource.